

**REMARKS**

Favorable reconsideration, reexamination, and allowance of the present patent application are respectfully requested in view of the foregoing amendments and the following remarks.

**Allowable Subject Matter**

Applicant gratefully acknowledges the indication, at page 2 of the Office Action, that Claims 109-122, 128-135, 241-250, 256 and 272-279 are allowable. Applicant respectfully submits that all pending claims are in form for allowance for the reasons set forth below.

**Summary of Office Action**

Claims 260-262 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite.

Claims 251-255, 257-271 and 280 were rejected under 35 U.S.C. § 102(b) over U.S. Patent 5,895,515 to Ishikawa (Ishikawa'515).

Claims 260-262 and 269 were rejected under 35 U.S.C. § 103(b) over Ishikawa'515 in view of U.S. Patent 4,761,170 to Mansfield (Mansfield'170).

**Summary of Response to Office Action**

In Response to the December 19, 2009 Office Action, Applicant hereby amends claims 251 and 260-262 without prejudice or disclaimer and adds new claim 281. Accordingly, claims 109-122, 128-135, and 241-281 are currently pending. Claims 109, 128 and 251 are the only pending independent claims, with independent claims 109 and 128 being allowable.

**All Claims Are Allowable**

In the Office Action, beginning at page 2, Claims 260-262 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Applicant respectfully traverses this rejection and requests reconsideration for at least the following reasons.

The rejection indicates that the phrase “the heating” has no antecedent basis in claims 260-262. By this Amendment claims 260-262 have been changed to replace the phrase “the heating” with the phrase “the controlling temperature.” Accordingly, it is respectfully submitted that proper antecedent exists for all recited features of claims 260-262. This change is clerical in nature and should have no effect on the scope of the claims. Withdrawal of the rejection of claims 260-262 is respectfully requested.

In the Office Action, beginning at page 2, Claims 251-255, 257-271 and 280 were rejected under 35 U.S.C. § 102(b) over U.S. Patent 5,895,515 to Ishikawa (Ishikawa’515). Applicant respectfully traverses this rejection and requests reconsideration for at least the following reasons.

As shown in FIG. 5 of Ishikawa’515, the structure alleged to be a chamber in the outstanding Office Action is actually a soot-deposition container 400. Ishikawa’515 discloses a method for fabricating a glass preform that includes placing a glass rod 300 and glass soot 200 in a plurality of sequentially used containers/holders and environmental conditions. For example, Fig. 5 shows providing raw material with combustion gases and burner 510 to the tip of the starting glass rod 300 supported on a supporting rod 410 in the soot-deposition container 400. A carrier gas is then supplied to a cladding-depositing burner 520. The glass raw material is subject to hydrolysis to form fine glass particles, and these glass particles are deposited to form porous glass soot comprised of glass soot 100 for the core and glass soot 200 for the internal cladding. The porous glass soot is grown in the axial direction by pulling and rotating the support rod 410.

FIGS. 6 and 7 of Ishikawa’515 show the dehydration process and transparent glass forming process which occur in a different holding structure. These processes yield a glass body 710 comprised of a glass portion 110 which becomes the core and a glass portion 210 which becomes the internal cladding.

Next, as shown in FIG. 9, the glass body 310 supported by the support rod 460 is inserted into a soot-deposition container 450 having an exhaust port 470, and includes a deposition burner

530 for external cladding. Then the glass soot 220 for external cladding is heated in the same manner as in FIGS. 6 and 7, thereby finally obtaining a glass preform for optical fiber.

By contrast, claim 251 of the present application recites a method of producing fused silica fiber optic preforms, comprising providing a chamber configured to provide a controllable environment separate from an exterior ambient room environment, controlling at least one of temperature and dopant quantity within the chamber, and controlling pressure within the chamber. As explained above, Ishikawa'515 fails to disclose at least the feature of controlling at least one of temperature and dopant quantity within the chamber, and controlling pressure within the chamber because Ishikawa'515 is directed to a multi step process in which finally forming the preform occurs in a different holding structure as compared with the initial process for making a porous glass soot, and which does not require controlling of pressure in the chamber.

It is a common patent law tenet that "a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." M.P.E.P. § 2131 (citing *Verdegaal Bros. v. Union Oil Co. Of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)). In this case, Ishikawa'515 fails to disclose at least the features of controlling at least one of temperature and dopant quantity within the chamber, and controlling pressure within the chamber, as recited in claim 251. Since Ishikawa'515 fails to disclose each and every feature of claim 251, Ishikawa'515 fails to anticipate claim 251.

Further, since claims 252-255, 257-271 and 280 depend from and respectively incorporate all the features of claim 251, claims 252-255, 257-271 and 280 are also not anticipated by Ishikawa'515 at least for the above reasons for which claim 251 is not anticipated, and for the separate features that they recite. Thus, Applicant respectfully requests that the rejection of claims 251-255, 257-271 and 280 under 35 U.S.C. § 102(b) be withdrawn.

In the Office Action, beginning at page 2, Claims 260-262 and 269 were rejected under 35 U.S.C. § 103(b) over Ishikawa'515 in view of U.S. Patent 4,761,170 to Mansfield (Mansfield'170). Applicant respectfully traverses this rejection and requests reconsideration for at least the following reasons.

The Examiner relies on Mansfield'170 to allegedly disclose an RF heater for heating the material in the soot chamber.

Mansfield'170 fails to disclose or suggest controlling at least one of temperature and dopant quantity within the chamber, and controlling pressure within the chamber, as recited in claim 251.

Because neither Ishikawa'515 nor Mansfield'170, either alone or in combination, teach the above-referenced features, as well as other features, of Applicants' claim 251, it is respectfully submitted that there is no *prime facie* case for obviousness of claims 260-262 and 269, which all depend from claim 251. Therefore, Applicants respectfully request that the rejection of claims 260-262 and 269 under 35 U.S.C. § 103(a) be withdrawn at least for the above reasons.

### **New Claim**

New claim 281 is added to provide an alternate scope for the invention. It is respectfully submitted that new claim 281 is also in immediate form for allowance.

### **Conclusion**

Applicant respectfully submits that the present patent application is in condition for allowance. An early indication of the allowability of this patent application is therefore respectfully solicited.

If the patent Examiner believes that a telephone conference with the undersigned would expedite passage of this patent application to issue, he is invited to call on the number below.

It is not believed that extensions of time are required, beyond those that may otherwise be provided for in accompanying documents. If, however, additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. § 1.136(a), and the Commissioner is hereby authorized to charge fees

necessitated by this paper, and to credit all refunds and overpayments, to our Deposit Account listed on Applicant's initial application filing transmittal document.

Respectfully submitted,  
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